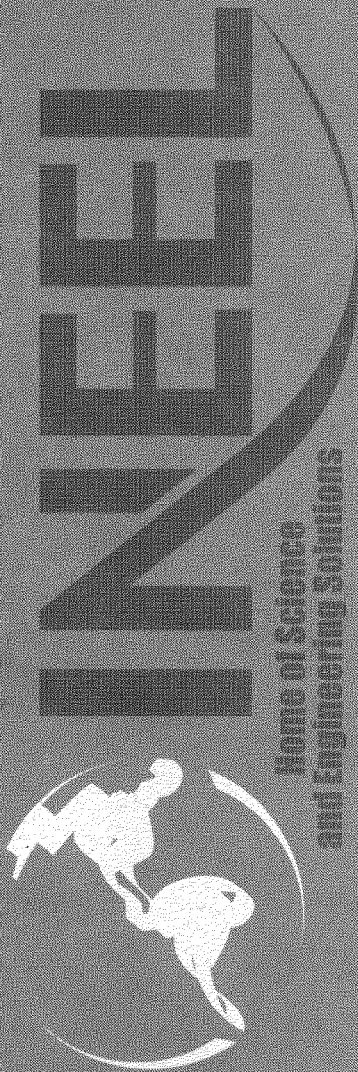


Prefinal Inspection Checklist for the OU 7-10 Glovebox Excavator Method Project

June 2003



*Idaho National Engineering and Environmental Laboratory
Bechtel BWXT Idaho, LLC*

Prefinal Inspection Checklist for the OU 7-10 Glovebox Excavator Method Project

June 2003

**Idaho National Engineering and Environmental Laboratory
Idaho Completion Project
Idaho Falls, Idaho 83415**

**Prepared for the
U.S. Department of Energy
Assistant Secretary for Environmental Management
Under DOE Idaho Operations Office
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ABSTRACT

In accordance with the Federal Facility Agreement and Consent Order, the U.S. Department of Energy, U.S. Environmental Protection Agency (EPA), Idaho Department of Environmental Quality (IDEQ), and possibly an independent fourth party, will conduct a prefinal inspection of the Operable Unit 7-10 Glovebox Excavator Method Project. This inspection will be conducted prior to the U.S. Department of Energy Idaho Operations Office (DOE-ID) Line Management Assessment and Operational Readiness Review. Comments received from EPA, IDEQ, and any independent fourth party during the prefinal inspection will be included in the prefinal inspection report with DOE-ID's responses. Per the Federal Facility Agreement and Consent Order, any unresolved issues regarding the prefinal inspection report will be addressed in the remedial action report. This checklist is available for use during the prefinal inspection as an aid to ensure that a complete inspection is performed and that results are documented for each area. Appendix A of this document contains the checklist and general instructions for the completing the checklist.

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Prefinal Inspection Checklist for the OU 7-10 Glovebox Excavator Method Project

1. PURPOSE

In accordance with the Federal Facility Agreement and Consent Order (FFA/CO) (DOE-ID 1991), the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), Idaho Department of Environmental Quality (IDEQ), and possibly an independent fourth party will conduct a prefinal inspection of the Operable Unit (OU) 7-10 Glovebox Excavator Method Project. This inspection will be conducted prior to the Department of Energy Idaho Operations Office (DOE-ID) Operational Readiness Review (ORR). This prefinal inspection checklist identifies the suggested areas to be reviewed upon completion of project construction and testing activities in advance of operation of the Glovebox Excavator Method Project. This checklist is available for use during the prefinal inspection to ensure that a complete review of all construction activities is performed and that results are documented for each area.

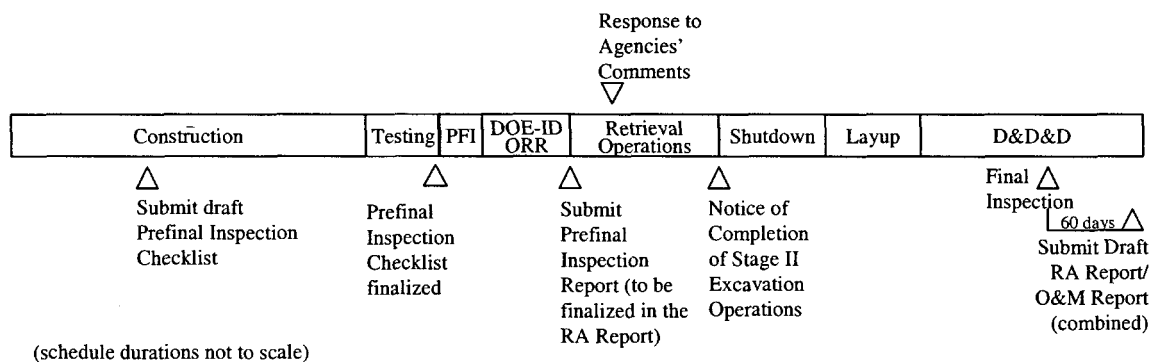
2. APPLICABILITY AND SCOPE

This checklist applies to the OU 7-10 Glovebox Excavator Method Project. The scope encompasses the design, construction, and preoperational elements to be reviewed by the EPA and IDEQ (hereafter referred to as the 'Agencies') before DOE declares the facility ready to operate. As such, the checklist includes project documents, procedures and work control documents, training documents, environmental compliance and regulatory-driven items, construction completion items, testing items, specific project systems, components, activities, startup procedures, sample analysis, inspection and maintenance, operating procedures, contingency and emergency procedures, and other areas that the Agencies may want to confirm have been addressed and are functional prior to facility operation.

3. PREFINAL/FINAL INSPECTION PROCESS

This section describes the overall prefinal inspection process for the OU 7-10 Glovebox Excavator Method Project as diagrammed in Figure 1.

- DOE-ID submits to the Agencies the draft prefinal inspection checklist (this document including Appendix A) with the Remedial Design package (Completed September 2002).
- Agencies review the draft checklist and provide comments to DOE within the 25 days specified in the Agreement to Resolve Disputes (DOE 2002) (Completed October 2002).
- DOE-ID responds to Agency comments and incorporates resolutions into the checklist. The checklist is then finalized and issued as Revision 0 prior to the prefinal inspection. Selected documents from the checklist are provided to the Agencies for informational purposes in advance for their use during the prefinal inspection.



D&D&D = deactivation, decontamination, and decommissioning
 DOE-ID = U.S. Department of Energy-Idaho Operations Office
 LMA = line management assessment
 O&M = operations and maintenance
 ORR = operational readiness review
 PFI = prefinal inspection
 RA = remedial action

Figure 1. Prefinal inspection process diagram.

- DOE-ID notifies the Agencies approximately 2 weeks prior to the date set for the prefinal inspection. The prefinal inspection will be approximately 5 working days and is to precede the ORR conducted by DOE.
- The Agencies (and possibly an independent fourth party) conduct the project review using the approved prefinal inspection checklist as an aid and provide the completed checklist to DOE-ID. The completed checklist shall be returned to DOE-ID at the completion of the prefinal inspection.
- The Agencies and DOE-ID then discuss any identified issues regarding the items reviewed, including possible actions for their resolution, before the prefinal inspection closeout.
- The prefinal inspection report is prepared by DOE-ID following completion of the prefinal inspection. The report (described in further detail in Section 4 below) identifies:
 - Agency comments made during the prefinal inspection and submitted in writing by the Agencies to DOE-ID.
 - The DOE-ID responses (including, where appropriate, agreed-to actions taken or to be taken)
 - Action completion status
 - Forecasted completion dates for identified actions that are not complete as of the report date,
 - The date for the final inspection. The final inspection is planned to coincide with replacement of overburden during deactivation, decontamination, and decommissioning (D&D&D). The actual dates for the final inspection and the overburden replacement remains to be determined.

Along with the prefinal inspection report, an information copy of the DOE-ID ORR Report and DOE-ID's Authorization to Operate is provided as additional confirmation of the OU 7-10 Glovebox Excavator Method Project's operational status.

- DOE-ID submits the prefinal inspection report to the Agencies.

- Agencies review the prefinal inspection report and provide any comments to DOE-ID within 30 days.
- DOE-ID prepares and submits responses to Agency comments on the prefinal inspection report within 30 days of the close of the comment period. Per the FFA/CO, the prefinal inspection report is not revised, but is finalized in the remedial action report.
- During the waste zone material retrieval period, onsite Agency oversight personnel observe the project's progress toward completion of project objectives.
- DOE-ID submits the Notification of Completion of Stage II Excavation to the Agencies upon removal of the 75–125 cubic yards of waste and completion of the underburden and waste sampling activities.
- The Agencies perform the final inspection during overburden replacement that is part of facility D&D&D.
- Per the Agreement to Resolve Disputes (DOE 2002), DOE-ID submits to the Agencies within 60 days of the Final Inspection the draft remedial action (RA) report. Review and approval of the draft RA report is pursuant to the FFA/CO process for primary documents.

4. ELEMENTS OF THE PREFINAL INSPECTION REPORT

The prefinal inspection report is an FFA/CO secondary document that will be prepared by BBWI for DOE-ID. Although DOE-ID will respond to comments received, the prefinal inspection report will not be revised but, rather, will be finalized in the primary RA report. The following elements are planned to be included in the prefinal inspection report.

4.1 Description of the Prefinal Inspection Process

The prefinal inspection process, up to and including the description of the final inspection, is included in the prefinal inspection report.

4.2 Completed Prefinal Inspection Checklist

The completed checklist (this document including Appendix A) is included in the prefinal inspection report to document the results of the prefinal inspection.

4.3 Discussion of Comments

Agency comments are documented and discussed in the prefinal inspection report. All comments will be tied to the appropriate checklist items and the DOE-ID responses.

4.4 Response Actions

The prefinal inspection report will document any response actions deemed necessary by DOE-ID to address Agency comments and will identify the following:

- DOE-ID responses to resolve items

- Completion status (i.e., open, closed, pending) for individual response actions
- Planned date of completion (if not yet completed) for individual response actions.

4.5 Date of Final Inspection

The prefinal inspection report will document the timing (i.e., event-based start) agreed upon by DOE-ID and the Agency project managers for the final inspection. This date is planned to coincide with the replacement of overburden on the excavation site during facility D&D&D.

4.6 DOE Operational Readiness Report

Per Appendix A of the *OU 7-10 Remedial Design/Remedial Action Scope of Work and Remedial Design Work Plan: Operable Unit 7-10 (Pit 9 Project Interim Action)* (DOE-ID 1994) (INEEL 1995), an information copy of the DOE ORR Report will be included as an attachment to the prefinal inspection report.

4.7 DOE Authorization to Operate

Per Appendix A of the *OU 7-10 Remedial Design/Remedial Action Scope of Work and Remedial Design Work Plan: Operable Unit 7-10 (Pit 9 Project Interim Action)*, an information copy of the Authorization to Operate from DOE-ID will be included as an attachment to the prefinal inspection report.

5. REFERENCES

- DOE, 2002, *Agreement to Resolve Disputes, the State of Idaho, United States Environmental Protection Agency, United States Department of Energy*, U.S. Department of Energy, State of Idaho, U.S. Environmental Protection Agency, April 18, 2002.
- DOE-ID, 1994, "Remedial Design and Remedial Action Guidance for the Idaho National Engineering Laboratory," DOE/ID/12584-152.
- DOE-ID, 1991, *Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory*, Administrative Record No. 1088-06-29-120, U.S. Department of Energy Idaho Operations Office; U.S. Environmental Protection Agency, Region 10; Idaho Department of Health and Welfare, December 4, 1991.
- INEEL, 1995, *Remedial Design/Remedial Action Scope of Work and Remedial Design Work Plan: Operable Unit 7-10 (Pit 9 Project Interim Action)*, INEL-94/0110, Rev. 1, Idaho National Engineering and Environmental Laboratory.

Appendix A

Prefinal Inspection Checklist
for the OU 7-10 Glovebox Excavator Method Project

Instructions for Completing the Prefinal Inspection Checklist

The following instructions are included for filling out the prefinal inspection checklist.

Column 2: What was Checked — Identifies the item(s) that were checked.

Column 3: Status — The reviewer(s) checking the item shall note whether the review was completed.

Column 4: Inspector — The reviewer(s) checking the item shall place their initials in this column to indicate that the review was completed.

Column 5: Date — The reviewer(s) checking the item shall note the date the review was completed.

Column 6: Comments — Reviewers shall use this column to document any comments noted during their review and may also use this column to make field notes.

Column 7: References/Field Notes — Reviewers shall use this column to document any references or to capture field notes.

Each Agency reviewer and, if used, an independent fourth party reviewer, will complete a separate checklist. These individual checklists will be combined into a single Agency submission to DOE-ID. Upon completion of the prefinal inspection, each reviewer shall fill out the signature block below.

Prefinal Inspection Checklist Signature Block

Reviewer Name (Printed)	Reviewer Signature	Reviewer Initials	Date

Prefinal Inspection Checklist
for the OU 7-10 Glovebox Excavator Method Project

Review Area	What Was Checked	Status	Reviewer	Date Reviewed	Comments	References / Field Notes
1. Project Documents						
a. Operations Health and Safety Plan						
b. Field Sampling Plan						
c. Quality Assurance Project Plan						
d. O&M Plan						
e. Essential drawings						
f. Update to Addendum 3 to INEEL Emergency Plan/ RCRA Contingency Plan (PLN-114)						
2. Procedures and Work Control Documents						
a. Required Material Safety Data Sheets						
b. Emergency notification						
c. Leakage and spill response procedures						
d. Waste packaging and transportation procedures						
3. Personnel Training						
a. Project Training Plan (PDD-108)						
b. HASP training						
c. OSHA 29 CFR 1910.120 24 or 40 hr “Hazardous Waste Operations and Emergency Response” (HAZWOPER), as applicable						
d. OSHA 29 CFR 1910.120 8 hr supervisor						
e. Radiological Worker I or II, as applicable						
f. Conduct of Operations training						
g. Conduct of Maintenance training						
h. RCRA emergency coordinators are trained and on-site (storage personnel only)						
i. RCRA training for storage and hazardous waste management (40 CFR 264.16) (storage personnel only)						
j. RWMC Access training						

Prefinal Inspection Checklist
for the OU 7-10 Glovebox Excavator Method Project

Review Area	What Was Checked	Status	Reviewer	Date Reviewed	Comments	References / Field Notes
4. Environmental Compliance/Regulatory Documentation						
a. ARAR Implementation Matrix						
b. NESHAPs Radiological Monitoring Plan						
c. Waste Management Plan						
d. Appendix L to INEEL RCRA Contingency/Emergency Plan						
5. Facility and Infrastructure Completion						
a. OU 7-10 GEM Project Turnover Package INEEL/EXT-03-00622						
6. Systems and Components						
a. Excavator System						
b. Fissile Material Monitor (FMM)						
c. Closed Circuit Television (CCTV) System						
d. Fire Protection System						
e. Electrical Power System						
f. Heating and Ventilation System						
g. Breathing Air System						
h. Plant Air System						
i. Dust Suppression System						
j. Criticality Alarm System						
k. Life Safety Systems						
l. Radiological Monitoring (CAM and RAM)						
m. Emissions Monitoring System						
n. Packaging Glovebox System						
o. Storage System						
p. Drum Assay System						
7. Sampling						
a. Sampling procedures						
b. Sample Transportation (EDF-3503)						
c. Sample Collection Logs						

Prefinal Inspection Checklist
for the OU 7-10 Glovebox Excavator Method Project

Review Area	What Was Checked	Status	Reviewer	Date Reviewed	Comments	References / Field Notes
8. Operating Procedures						
<i>Normal Operating Procedures</i>						
a. Initial Facility Startup						
b. Overburden Removal						
c. Waste Retrieval						
d. Waste Handling, Packaging, and Storage						
e. Container Changeout						
f. Drum Transport						
g. Waste Sampling and Sample Transfer						
h. Underburden Sampling and Analysis						
i. Bag-In and Bag-Out Operations						
j. Facility Shutdown and D&D&D Preparation						
k. Setup, Operation and Maintenance of the Dust Suppression System						
l. Setup, Operation and Maintenance of the Operate CCTV System						
m. Setup, Operation and Maintenance of the Fissile Material Monitor						
n. Setup, Operation, and Maintenance of the Drum Assembly System						
o. Setup, Operation and Maintenance of the Emission Monitoring Systems						
p. Setup, Operation and Maintenance of the HEPA Filter and Ventilation Systems						
q. Drum Assay System						
9. Contingency Plan/Emergency Response Procedures						
<i>Emergency Abnormal and Alarm Response Procedures (EARs)</i>						
a. Response to Power Loss						
b. Response to Firewater Loss						
c. Response to Ventilation Loss						
d. Response to Confinement Breach						
e. Response to High Radiological Alarms						

Prefinal Inspection Checklist
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Review Area	What Was Checked	Status	Reviewer	Date Reviewed	Comments	References / Field Notes
f. Response to an RWMC or Site Area Evacuation						
g. Response to Fire						
h. Response to Radioactive or Hazardous Material Spills						
i. Response to High Winds						
<i>RWMC Emergency Procedures/Contingency Plans</i>						
a. System shutdown notification system is in place and has been tested for proper operation						
b. Abnormal conditions procedures have been approved and issued						
c. Security surveillance and notification requirements have been established with the facility security organization						
d. Emergency alarm/notification systems have been tested						
<i>Initial Actions</i>						
a. RWMC Emergency Response Organization Activation						
b. Event Classification/Emergency Action Levels						
c. Emergency Event Notifications						
d. Initial Radiological and Non-radiological Consequence Assessment (ECC/CP)						
<i>Protective Actions</i>						
a. Determining and Implementing Protective Actions for RWMC						
b. Relocation of Evacuees						
c. Request and Control of Evacuation Buses						
<i>Operations Events</i>						
a. Transportation Accidents on the INEEL						
b. Range Fires on the INEEL						
c. Fire/Explosion at RWMC						
d. Loss of Commercial Power—RWMC						
e. Response to Natural Phenomena on the INEEL						
f. On-Scene/Unified Command on the INEEL						

Prefinal Inspection Checklist
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Review Area	What Was Checked	Status	Reviewer	Date Reviewed	Comments	References / Field Notes
<i>Nonradiological Hazardous Materials Events</i>						
a. Nonradiological Hazardous Materials Decontamination for Emergency Workers and Equipment						
b. Nonradiological Hazardous Material Release Concentrations in Air at 30 Meters						
<i>Radiological Events</i>						
a. RWMC Facility Emergency Radiological Monitoring						
<i>Control and Mitigation</i>						
a. Emergency Exposure Control						
b. Reentry						
c. Emergency Event Termination						
<i>Recovery</i>						
a. Recovery						
<i>Command Post Operations</i>						
a. Emergency Response Organization Logkeeping						
b. Emergency Information Management System						
c. Radio Protocol						
d. Command Post/Emergency Control Center/Emergency Operations Center Relocation						
10. Equipment and System Readiness						
a. Personal protection equipment is identified and available						
b. Medical and first aid supplies are identified and available						
c. Fire protection equipment is identified and available						
d. Recommended spare parts are identified and available						